AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claim 1-10. (Cancelled).

Claim 11. (Currently Amended) A sterile microorganism growth substrate comprising:

(a) a sterilized nutrient composition, wherein said composition is a sterile biomass generated from bacterial cells, wherein said bacterial cells comprise:

(i) at least one species of methanotrophic bacteria, and

(ii) at least one species of heterotrophic bacteria,

(b) at least one sterile nutrient, which is a carbon source, added to the biomass, and

(c) optionally a sterile diluent.

Claim 12. (Previously Presented) The substrate as claimed in claim 11, wherein said at least one sterile nutrient added to the biomass is glucose.

Claim 13. (Previously Presented) The substrate as claimed in claim 12, wherein glucose is present in a weight ratio of 5:1 to 1:5, on a dry mass basis relative to the biomass.

Claim 14. (Previously Presented) The substrate as claimed in claim 35, wherein nitrate and mineral salts are present in a weight ratio of 0.01:1 to 0.2:1, relative to the biomass.

Claim 15-24. (Cancelled).

Claim 25. (Previously Presented) The substrate as claimed in claim 35, wherein said mineral salts are selected from the group consisting of potassium, calcium, magnesium, sodium, molybdenum, iron, zinc, boron, cobalt, manganese and nickel compounds.

Claim 26. (Previously Presented) The substrate as claimed in claim 13, wherein glucose is present in a weight ratio of 2:1 to 1:2, on a dry mass basis relative to the biomass.

Claim 27. (Previously Presented) The substrate as claimed in claim 14, wherein nitrate and mineral salts are present in a weight ratio of 0.05:1 to 0.1:1, relative to the biomass.

Claim 28. (Previously Presented) The substrate as claimed in claim 11, wherein said at least one species of methanotrophic bacteria includes *Methylococcus capsulatus* (Bath) (strain NCIMB 11132).

Claim 29. (Previously Presented) The substrate as claimed in claim 28, wherein said at least one species of heterotrophic bacteria additionally includes a member selected from the group consisting of *Ralstonia sp.* DB3 (strain NCIMB 13287), *Aneurinibacillus sp.* DB4 (strain NCIMB 13288), and *Brevibacillus agri* DB5 (strain NCIMB 13289).

Claim 30. (Currently Amended) The substrate as claimed in claim 11, wherein the ~~sterilized~~ sterilize nutrient composition is a dried autolysate of a bacterial biomass.

Claim 31. (Previously Presented) The substrate as claimed in claim 11, wherein said biomass is generated from a culture containing at least one species of methanotrophic bacteria and

at least one species of heterotrophic bacteria, wherein the methanotrophic bacteria and the heterotrophic bacteria are grown in a culture medium containing methane, oxygen, ammonia, and mineral feeds.

Claim 32. (Previously Presented) The substrate as claimed in claim 31, wherein said culture is at least 50% by weight methanotrophic bacteria relative to the total bacterial weight.

Claim 33. (Previously Presented) The substrate as claimed in claim 32, wherein said culture is from 75% to 95% by weight methanotrophic bacteria relative to the total bacterial weight.

Claim 34. (Currently Amended) The substrate of claim 11, wherein said biomass is a dewatered ~~and sterilized~~ bacterial culture, or is a culture processed by homogenization, hydrolysis, or autolysis.

Clam 35. (Previously Presented) The substrate of claim 11, wherein nitrate or mineral salts, or combination thereof, are additionally added to the biomass.

Claim 36. (New) A method of culturing a microorganism, comprising culturing a microorganism in the presence of the growth substrate of any of Claims 11-14 or 25-35.